STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

In the matter of approving a new air contaminant source for Oroville Reman and Reload	**)**	**Proposed Decision Regarding Notice of Construction Order No. 11AQ-C156**

TO: Doug Tracey, Manager
Oroville Reman & Reload Inc.
PO Box 1610
Oroville, WA 98844

Oroville Reman & Reload proposes to install and operate a 9.3 million British Thermal Unit per Hour (MMBtu/hr) biomass-fired boiler, controlled by an electrostatic precipitator, two steam-heated dimensional lumber kilns, and a biomass storage silo, at their existing lumber mill.

The existing lumber mill re-manufactures and reloads lumber products. Products produced by the mill may vary over time in response to market conditions. In the past, the mill has produced pallets and bins for the fruit industry. The mill is divided into "Plant 1" and "Plant 2". Plant 1 manufactures the majority of the mill's products, while Plant 2 primary processes short boards using trim saws. The existing mill equipment includes: four rip saws, five chop saws, one molder, one trim saw, associated air pollution control equipment, and wood waste truck loadout.

Oroville Reman & Reload is located at 301 9th Avenue, Oroville, within Section 28, Township 40 North, Range 27 East, W.M., Okanogan County.

In relation to the above, the State of Washington Department of Ecology (Ecology), pursuant to Revised Code of Washington (RCW) 70.94.152, makes the following determinations regarding the project:

1. It qualifies as a new source of air contaminants under Washington Administrative Code (WAC) 173-400-110, May 20, 2009, and a new source of toxic air pollutants under WAC 173-460-040, May 20, 2009.

2. It will be located in an area which is in attainment or unclassifiable for all criteria pollutants.

3. Allowable emissions will not delay the attainment date for an area not in attainment nor cause or contribute to a violation of any ambient air quality standard.

4. It will comply with all applicable new source performance standards, national emission standards for hazardous air pollutants, national emission standards for hazardous air pollutants for source categories and emission standards adopted under chapter 70.94 RCW.

5. It will employ Best Available Control Technology or Best Available Control Technology for Toxics, for all pollutants emitted.

6. It is not a major stationary source or major modification subject to the Prevention of Significant Deterioration permitting requirements of WACs 173-400-700 through 173-400-750.

THEREFORE, it is ordered by the Department of Ecology that Oroville Reman & Reload's emission units, specified herein, are subject to the following conditions:

APPROVAL CONDITIONS

1 Laws and Regulations

The source will comply with all state laws and regulations, including:

- Chapter 70.94 RCW, Washington Clean Air Act.
- Chapter 173-400 WAC, General Regulations for Air Pollution Sources.
- Chapter 173-460 WAC, Controls for New Sources of Toxic Air Pollutants.

The source will comply with all federal laws and regulations.

2 Potential to Emit

This project shall not exceed the following potential-to-emit of the specified air contaminants, including periods of start-up and shut-down:

Pollutant	**Mill**	**Boiler**	**2-Dry Kilns**	
Nitrogen Oxides (NO_x)		16.3		tons per year
Carbon Monoxide (CO)		16.3		tons per year
Sulfur Dioxide (SO_2)		1.02		tons per year
Volatile Organic Compounds (VOC)		0.69	17.3	tons per year
Total Suspended Particulate (TSP)	18.2	1.46	0.55	tons per year
Particulate Matter (PM_{10})	7.3	1.46	0.55	tons per year
Particulate Matter ($PM_{2.5}$)	3.7	1.46	0.55	tons per year
Toxic Air Pollutants (TAPs)*				
Acetaldehyde		67.6	259.2	pounds per year
Acrolein		19.5	34.6	pounds per year
Benzene		0.039		pounds per year
Benzo(a)pyrene		0.21		pounds per year
Chlorine		64.4		pounds per year
Formaldehyde		358	86.4	pounds per year
Hydrogen chloride		570		pounds per year
Naphthalene		7.90		pounds per year
Polychlorinated dibenzo-p-furans		0.000155		pounds per year
Arsenic		0.144		pounds per year
Chromium (VI)		0.0228		pounds per year
Manganese		10.4		pounds per year

* Toxic Air Pollutants with potential-to-emit in excess of their respective Small Quantity Emission Rate, as listed in WAC 173-460-150.

3 Lumber Mill

Legal Authority: A mill has been in operation since 1981. Four rip saws, five chop saws, one molder, one trim saw, one drying tunnel and associated air pollution control equipment, were installed from 1992 to 2004, and qualified as a new source of air contaminants under WAC 173-400-110. These units were originally permitted under Order No. 05AQ-C022, issued November 7, 2005, and Order No. 05AQ-C022 First Revision, issued February 24, 2009. This Order supercedes Order No. 05AQ-C022 First Revision; Order No. 05AQ-C122 First Revision is no longer in effect. These emission units were reviewed under the legal authority of RCW 70.94.152 and the applicable rules and regulations adopted thereunder.

3.1 Plant 1

3.1.1 Particulate matter emissions from Plant 1 shall be controlled by enclosure of all wood waste storage areas and non-pneumatic conveyors, except that such enclosure is not required if there are no visible emissions. Each pneumatic conveyor system discharge shall be controlled by fabric filter control device (baghouse). No cyclone shall be used unless the discharge to the air from the top of the cyclone is controlled by a properly designed and operated baghouse.

3.1.2 Total particulate matter (TSP) emissions from any baghouse exhaust shall not exceed 0.01 grains per dry standard cubic foot of exhaust gas, and 2.55 pounds per hour.

3.2 Plant 2

3.2.1 Particulate matter emissions from Plant 2 shall be controlled by enclosure of all wood waste storage areas and non-pneumatic conveyors, except that such enclosure is not required if there are no visible emissions. Each pneumatic conveyor system discharge shall be controlled by a properly designed and operated cyclone.

3.2.2 Plant 2's cyclone shall operate for no more than 2,000 hours in any consecutive 12-month period.

3.2.3 Total particulate matter (TSP) emissions from Plant 2's cyclone shall not exceed 7.00 pounds per hour. Visible emissions from the cyclone shall not exceed 10 percent opacity. Visual emissions shall be measured by using the procedures contained in 40 CFR 60, Appendix A, Method 9.

3.3 Wood Waste

3.3.1 No more than 10,000 tons of wood waste (total of sawdust, shavings, grindings, sander dust, and chips) shall be produced per year, measured as a 12-month rolling total calculated on a quarterly basis.

3.3.2 There shall be no visible emissions to the outside air from any conveying or storage.

3.3.3 The permittee shall not cause or allow wood waste particles to be deposited beyond the property line in sufficient quantity to interfere unreasonably with the use and enjoyment of the property upon which the material is deposited.

3.4 Truck Loading

All truck loading of wood waste shall be conducted within a complete enclosure controlled by a fabric filter control device. No wood waste shall be shipped from the site by rail.

3.5 Vehicle Travel and Other Fugitive Dust

3.5.1 No emissions generated on the site shall be visible beyond the property line.

3.5.2 Fugitive dust (including both wood waste particles and dust from traditional open dust sources generated by forces of wind or machinery acting on exposed materials) shall be properly controlled in accordance with a site-specific fugitive dust control plan (FDCP). The FDCP shall be kept up-to-date. Failure to follow the FDCP and the adequacy of the FDCP will be two of the factors considered by Ecology in determining whether the fugitive dust is being properly controlled. The FDCP shall at a minimum include:

3.5.2.1 Requirements to practice good housekeeping, including a requirement to clean up any visible spill of wood waste as soon as it occurs;
3.5.2.2 Procedures to ensure that no material with an identifiable fraction of wood is deposited on nearby property;
3.5.2.3 A prohibition on storage of chips, saw dust, or wood waste in unenclosed piles, except that such enclosure is not required if there are no visible emissions.
3.5.2.4 Control of emissions from vehicle travel areas shall include either paving or application of dust suppressants at sufficiently frequent intervals to prevent visible fugitive emissions exceeding 10% opacity;
3.5.2.5 A vehicle speed limit of 10 miles per hour;
3.5.2.6 Measures to ensure there is no vehicle track-out onto off-site roads.

4 Lumber Kilns

Legal Authority: The two-84 foot double track steam-heated dimensional lumber kilns qualified as a new source of air contaminants under WAC 173-400-110, May 20, 2009, and a new source of toxic air pollutants under WAC 173-460-040, May 20, 2009. These emission units were reviewed under the legal authority of RCW 70.94.152 and the applicable laws and regulations adopted thereunder.

4.1 Kiln throughput quantity shall not exceed 2,635 board feet per hour (BF/hr) and 21,600,000 BF/year, of combined lodgepole pine and spruce. Permittee may dry other species of wood if they can demonstrate that it results in equal or lower emission rates of each TAP, VOC, and particulate matter. Such demonstration shall be submitted to Ecology prior to beginning drying of the other wood species.

4.2 Each kiln shall be sealed with a dedicated exhaust fan and stack. Each exhaust stack shall vent vertically without obstruction, with a maximum diameter of 2.0 feet, a minimum height of 45 feet above the ground level, and a maximum temperature of 140 ^{o}F.

4.3 At no time shall any kiln dry-bulb temperature setpoint, or the actual dry-bulb temperature in any dry kiln, exceed 200 ºF. Heating (ex., kiln fans and dampers) will be controlled by the computerized steam management system. Continuously monitor and record the dry-bulb temperature in each dry kiln using a device accurate to within ± 0.5 ºF.

4.4 Visual emissions from each exhaust stack shall be no more than 10 percent. Visual emissions shall be measured by using the procedures contained in 40 CFR 60, Appendix A, Method 9. (Note that visible emissions do not include water vapor.)

5 Boiler

Legal Authority: The 9.3 MMBtu/hr biomass boiler and a 6,000 ft^3 biomass storage silo, qualified as a new source of air contaminants under WAC 173-400-110, May 20, 2009, and a new source of toxic air pollutants under WAC 173-460-040, May 20, 2009. These emission units were reviewed under the legal authority of RCW 70.94.152 and the applicable laws and regulations adopted thereunder.

5.1 Only hog fuel shall be burned in the boiler. For the purposes of this Permit, "hog fuel" means wood pieces or particles generated as a by-product or waste from the manufacturing of wood products, and the handling and storage of raw materials, trees, and stumps. This definition includes but is not limited to sawdust, chips, shavings, bark, pulp, and log sort yard waste, but **does not** include wood pieces or particles containing chemical preservatives such as creosote, pentachlorophenol, or copper-chrome-arsenate. (Note: At least initially, the facility is anticipated to burn wood waste generated onsite.)

5.2 All hog fuel shall be stored in the silo and conveyed to the boiler utilizing a fuel metering system.

5.3 Boiler emissions shall be controlled by utilizing combustion air controls and an electrostatic precipitator. The exhaust stack shall vent vertically without obstruction, with a maximum diameter of 2.0 feet, a minimum height of 55 feet above the ground level, and a minimum temperature of 330 ºF.

5.4 Boiler ash and multiclone collection shall be emptied and disposed of in a manner that it will not enter the air.

5.5 Boiler NO_X emissions shall not exceed 240 ppm AND 0.4 lb/MMBtu AND 3.7 lb/hr. NO_X shall be measured by using the procedures contained in 40 CFR 60, Appendix A, method 7E.

5.6 Boiler CO emissions shall not exceed 390 ppm AND 0.4 lb/MMBtu AND 3.7 lb/hr. CO shall be measured by using the procedures contained in 40 CFR 60, Appendix A, method 10A.

5.7 Boiler filterable PM emissions shall not exceed 0.019 lb/MMBtu AND 0.1767 lb/hr. Filterable PM shall be measured by using the procedures contained in 40 CFR 60, Appendix A, method 5.

5.8 Boiler condensable PM emissions shall not exceed 0.017 lb/MMBtu AND 0.16 lb/hr. Condensible PM shall be measured by using the procedures contained in 40 CFR 51, Appendix M, method 202.

5.9 Visual emissions from each exhaust stack shall be no more than 10 percent. Visual emissions shall be measured by using the procedures contained in 40 CFR 60, Appendix A, Method 9.

5.10 Testing Requirements

5.10.1 Within 30 days after initial boiler operation, Permittee shall conduct initial performance testing, to demonstrate compliance with conditions 5.5 through 5.9, of this Order. Testing shall be performed an independent testing firm.

5.10.2 Source testing shall be conducted annually for each pollutant not meeting its respective emission limit(s), during any of the previous three source tests, and every five years for each other pollutant(s). The term "annually", shall mean no more than 12 calendar months following the previous performance test.

5.10.3 The boiler shall be tested for opacity, NO_X, CO, and particulate matter, using the test method specified in conditions 5.5 through 5.9. Alternate test methods may be proposed by the permittee in writing and approved by Ecology in advance of testing.

5.10.4 All testing shall be conducted within 90% of maximum production rate, include a complete operation cycle (i.e., grate cleaning and soot blowing), and be reflective of normal source operation.

5.10.5 A test plan, including a description of the methods proposed, shall be submitted for Ecology's approval at least 30 days prior to any performance testing. A written report shall be submitted to Ecology within 45 days after performance testing is conducted.

5.10.6 Sampling ports and platforms for performance testing must be provided by Permittee. Adequate permanent and safe access to the test ports must be provided.

6 Operation and Maintenance Manual

Emission unit specific O&M manual(s) shall be developed and followed. Manufacturers' operating instructions and design specifications for the engine, generator, and associated equipment shall be included in the manual. The O&M manual shall be updated to reflect any modifications of the equipment or its operating procedures. Emissions that result from failure to follow the operating procedures contained in the O&M manual or manufacturer's operating instructions may be considered proof that the equipment was not properly installed, operated, and/or maintained. The O&M manual shall at a minimum include:

6.1 Normal operating parameters for the emission units.

6.2 A maintenance schedule for the emission units.

6.3 A description of the monitoring procedures.

6.4 Actions for abnormal control system operation.

6.5 A requirement that no production shall occur unless the associated air pollution control system are operating.

6.6 A description of measures to prevent air emissions during baghouse cleaning and maintenance operations.

6.7 A requirement to review and update the O&M manual at least annually.

6.8 A requirement to keep O&M records organized in a readily accessible manner and available for inspection by Ecology.

7 Recordkeeping and Reporting

All records, Operations and Maintenance Manual, and procedures developed under this Order shall be organized in a readily accessible manner and cover a minimum of the most recent 60-month period. The following records are required to be collected and maintained:

7.1 Monthly production of wood waste (in tons). Each month quantify the most recent 12-month total production of wood waste.

7.2 Number of hours of operation of Plant 2's cyclone. Each month quantify the most recent 12-month total hours of operation.

7.3 Kiln temperature exceedance events, including the time and date of discovery of the exceedance, actions taken, and resolution.

7.4 Monthly kiln throughput (in BF) of each wood specie(s) dried. Each month quantify the most recent 12-month total throughput.

7.5 If other than lodgepole pine is dried in the kiln, a demonstration that the resulting emissions are less than or lower than lodgepole pine for each TAP, VOC, and particulate matter.

7.6 Periodic emissions inventory and other information may be requested by Ecology. Information will be submitted within 30 days of receiving the request, unless otherwise specified.

7.7 Permittee will provide written notice within 10 days of initial startup of each emission unit. Notice will contain the identification of the emission unit and the first date of operation.

8 General Conditions

8.1 **Discontinuing Operations:** It shall be grounds for rescission of this approval if physical operation is discontinued for a period of eighteen (18) months or more. Ecology may extend the 18-month period upon a satisfactory showing that an extension is justified.

8.2 **Compliance Assurance Access:** Access to the source by representatives of Ecology or the EPA shall be permitted upon request. Failure to allow such access is grounds for enforcement action under the federal Clean Air Act or the Washington State Clean Air Act, and may result in revocation of this Approval Order.

8.3 **Availability of Order and O&M Manual:** Legible copies of this Order and the O&M manual shall be available to employees in direct operation of the diesel electric generation equipment, and be available for review upon request by Ecology.

8.4 **Equipment Operation:** Operation of the emission units shall be conducted in compliance with all data and specifications submitted as part of the NOC application and in accordance with the O&M manual, unless otherwise approved in writing by Ecology.

8.5 **Modifications:** Any modification to an emission unit, contrary to information in the NOC application, shall be reported to Ecology at least 60 days before such modification. Such modification may require a new or amended NOC Approval Order.

8.6 **Activities Inconsistent with the NOC Application and this Approval Order:** Any activity undertaken by the permittee or others, in a manner that is inconsistent with the NOC application and this determination, shall be subject to Ecology enforcement under applicable regulations.

8.7 **Obligations under Other Laws or Regulations:** Nothing in this Approval Order shall be construed to relieve the permittee of its obligations under any local, state or federal laws or regulations.

Authorization may be modified, suspended or revoked in whole or part for cause including, but not limited to the following:

a. Violation of any terms or conditions of this authorization;

b. Obtaining this authorization by misrepresentation or failure to disclose fully all relevant fact.

The provisions of this authorization are severable and, if any provision of this authorization, or application of any provisions of their circumstances, and the reminder of this authorization, shall not be affected thereby.

YOUR RIGHT TO APPEAL

You have a right to appeal this Order to the Pollution Control Hearing Board (PCHB) within 30 days of the date of receipt of this Order. The appeal process is governed by Chapter 43.21B RCW and Chapter 371-08 WAC. "Date of receipt" is defined in RCW 43.21B.001(2).

To appeal you must do the following within 30 days of the date of receipt of this Order:

- File your appeal and a copy of this Order with the PCHB (see addresses below). Filing means actual receipt by the PCHB during regular business hours.
- Serve a copy of your appeal and this Order on Ecology in paper form - by mail or in person. (See addresses below.) E-mail is not accepted.

You must also comply with other applicable requirements in Chapter 43.21B RCW and Chapter 371-08 WAC.

ADDRESS AND LOCATION INFORMATION

Street Addresses	Mailing Addresses
Department of Ecology Attn: Appeals Processing Desk 300 Desmond Drive SE Lacey, WA 98503 **Pollution Control Hearings Board** 111 Israel RD SW STE 301 Tumwater, WA 98501	**Department of Ecology** Attn: Appeals Processing Desk PO Box 47608 Olympia, WA 98504-7608 **Pollution Control Hearings Board** PO Box 40903 Olympia, WA 98504-0903

DATED at Yakima, Washington, this [date] Day of [month], 2011.

Reviewed by:

PROPOSED DECISION
Lynnette A. Haller, PE
Air Quality Program
State of Washington
Department of Ecology

Approved by:

PROPOSED DECISION
Susan M. Billings
Section Manager
Air Quality Program
State of Washington
Department of Ecology